

Industrial By-Products Issue Paper
2001 JTR Recycling Market Development Roundtable

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Introduction

The purpose of this paper is to provide the background and context for the industrial by-products discussion which will take place at the Roundtable. This paper will serve as the basis for the discussion, and should be reviewed by all participants (with input gathered from staff not attending the Roundtable) prior to attending the session.

Current Situation

There are currently limited secondary markets for many high volume, industrial by-products such as sludges, ashes or other solid/semi-solid residues. Generators of these materials include, but are certainly not limited to, the coal combustion, metal casting, pulp and paper, cement, steel, mining and food processing industries. Many of the trade groups representing these industries (i.e., American Iron and Steel Institute) maintain generation, disposal and recycling numbers for the larger players in the industry (those members who are willing to report them). Additionally, some states (i.e., IN, MA) conducted surveys or market assessments of facilities. Finally, several government agencies may compile and maintain statistics on materials management for large industries (i.e., EPA's Sector Notebooks or Bureau of Mines mineral statistics).

Several state agencies, universities, trade groups and consultants have targeted large volume industrial or commercial waste streams in their waste reduction or market development initiatives. Despite these efforts, there is limited activity to promote and work with these industries to divert materials from landfills or on-site surface impoundments.

Recent/Ongoing Efforts

U.S. EPA's Metal Casting Sustainable Industry Project— a “Technical Subcommittee on Beneficial Reuse of Spent Foundry Sand” was established to develop a “matrix” of sand types and potential environmental concerns to better define the issues of concern to regulators.

Individual State Efforts— Several states have rules or policy documents specific to the beneficial use of a particular secondary material. Other states make beneficial use determinations on a case-by-case basis or have no formal process for approving or denying a request for approval. Many states have revised regulations, developed policy or guidance, and have initiated targeted outreach to a particular industry sector to assist with waste reduction or alternatives to landfilling through technical assistance programs.

National Council of the Paper Industry for Air and Stream Improvement (NCASI) By-Products Synergy Meeting— A meeting of representatives from several large industries with significant by-product generation was convened in Chicago in March 2001.

Foundry Industry Recycling Starts Today (FIRST) Project— The American Foundry Society established the FIRST project to provide a forum for foundry representatives to exchange

information and experiences on the recycling of spent foundry sand. The FIRST project partners with state and federal regulators on specific projects or in developing policy recommendations to increase the diversion of spent sands from disposal.

The Association of State and Territorial Solid Waste Management Officials (ASTWMO) completed a “Beneficial Use Survey” in April 2000 which summarizes the status of beneficial use programs and processes along with enforcement and compliance activities within the jurisdictions of the 42 respondents.

Department of Energy Agenda 2020– Environmental performance is a research focus area with beneficial reuse of solid waste as a component for many sectors producing industrial by-products.

Barriers

Regulatory:

- Information– Much of the information about these by-product streams is known only to the facility generating it
- Regulations
- Need for legislation to permit beneficial uses
- Perception - fear of chemicals and contamination by society
- Lack of actual data showing that applications are safe
- Definition of materials as waste
- Multiple agency involvement (i.e., DOT)

Market Development/Recycling:

- Transportation costs
- Low disposal costs
- Need for success stories to promote

Generators:

- Unwillingness to change operations
- Potential liability
- “Been There Done That” attitude - too many solicitors
- Smaller players
- Competition among facilities

Potential Solutions

Ideas for collaboration to maintain/expand current markets will be solicited and discussed during this session. However, a list of ideas generated by stakeholders at recent forums sponsored by industry and/or government follows:

- Increase involvement and promotion of results from existing forums by States
- Work with NCASI on next steps and follow up from March 2001 forum
- Communicate information on ongoing projects, research or regulatory initiatives to JTR contacts participating on workgroups

- Develop new commodity pages on JTRnet for spent by-products
- Document and promote success stories to market opportunities and overcome negative perceptions
- Work with solid waste regulators during rule revision affecting beneficial reuse

Session Outline

1. Overview of discussion paper (10 min)
2. Individual participant feedback - each participant will state the single most important barrier or need to expand market from their perspective (15 min)
3. Discussion - Additional information / issues for consideration (20 min)
4. Participant feedback - each participant will state the single most important opportunity for collaboration from their perspective (15 min)
5. Discussion - Potential collaboration/projects to address barriers (60 minutes)